



# Assessment of Personal Hygiene & Sanitation among adolescent Boys and Girl I-IV class of primary school students in Azam Campus Pune: A Cross sectional analysis survey

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## I. Introduction of Hygiene and Sanitation in students.

Unani system of Medicine is the first of its own which described not only healthand diseases of childhood but the review of classical literature will explore that it is filled with pediatric health which includes care, proper nurture and diet section, regimens for good health, medicine and different interventions during childhoodillnesses. The importance of child health has been recognized by Unani physicians. They have mentioned childhood diseases and regimens for asserting health. It is customary to divide childhood, but the children between 1-4 years of age are the preschool age children also called as “Toddlers”. <sup>(11)</sup> They deserve special attention by their mother and family. The children between 5-14 years of age group are considered as a school age children. These young children are vulnerable to social and health hazards which can retard or arrest their physical and mental developmentduring these critical years. They canaffect the health of community and community in-turn can affect them. <sup>(11)</sup>

In children death rate is a more refined indicator of the social situation in a country than infant mortality rate. It reflects the adverse environmental health hazards such as malnutrition, infections, infestations and mainly poor hygienic conditions. In order to reduce further morbidity and mortality and to improve health performance formanaging childhood diseases World Health Organization (WHO) and United Nations Children’s Fund (UINCEF) have developed an Integrated Management of Childhood Illness (IMCI) Strategy which targets the principal causes of morbidity and mortality forex: diarrhoeal

diseases, acute respiratory infections, underlying malnutrition etc. in an integrated manner and also addresses the overall health of a child. <sup>(9,10,11)</sup> In India there are approximately 6.3 lakh schools offering both primary and upper primary school education with a strength of 128.3 and 50 million students respectively. Schools are sacred because they provide a better environment for learning skills developing intelligence among children which can be utilized to achieve goal in their lives. On the other hand it is also important to learn effectively children need good health. <sup>(12,13)</sup> A school is a place where health education regarding important aspects of personal hygiene, necessary health practices; healthy environment, proper sanitation as well as Social Customs are being imparted in the children.

School health service is a personal health service, it is an economical and powerful means of raising community health and more important for future generations. It provides an ideal platform to detect the health problems among children early and to treat them in time. <sup>(14)</sup> The importance of school health services has been acknowledged across the countries since 20<sup>th</sup> Century. In several developed countries School health programs have evolved during the post – 2<sup>nd</sup> World War period. School health services tend to focus on the nutritional status and clinical assessment of the children. The said inputs are absolutely necessary but in developing countries like India it is in need to assess the state of personal hygiene which is directly and indirectly related with the nutritional and physical fitness of the children. <sup>(14,15)</sup> Thus school age is considered as a critical period in the development of human being and the school settings provide a strategic point of entry for improving children's health, self-esteem, life skills and behaviors <sup>(15)</sup> which are very essential to line them harmoniously according to the changing environment. The children between the age of 5-14 yrs i.e. the School age children, they spend most of their time in the School so in these children besides mother's and family attention, school environment contributes a lot for maintaining personal hygiene and learning good health practices. The common morbidities found among children were due to dental carries, URTI, pediculosis, tonsils, skin allergies etc. Thus the primary school going children are more susceptible to various kinds of diseases. <sup>(16)</sup> Hence to train the children in a healthy living way and to impart health education, one has to motivate them to do things conducive to health and to adopt good health practices. If health education is properly carried out it forms one of the most effective carried out it forms one of the most effective tool in the field of preventive and social medicine. <sup>(17)</sup>

## II. Aims and Objectives

- To collect the views of Modern as well as Unani physicians, scholars and different Philosophers regarding Jismani Safai (Personal Hygiene) in Tahaffuzi-wa-Samaji Tibb (Preventive and Social Medicine) among the children.
- To emphasize the morbidities associated with the unhygienic conditions and bad health practices among the primary school children.
- To develop good health habits and to bring desirable changes in the health knowledge of school children.

### III. Materials and Method

A Health survey programme (for about 6 months) among the primary school children studying from 1<sup>st</sup> to 4<sup>th</sup> classes was organized to determine the factors affecting the health status of primary school children and also to detect the leading morbidities in children related with the unhygienic conditions and poor health practices.

- **Study procedure:**

After taking necessary permission from our Honorable Principal to complete the research proposal by Conducting Health Survey Programmes in primary schools and by obtaining consent from the Head Mistress of the Schools a Health study programme was conducted. The Head's of schools instructed their staff members to extend their fullest co-operation. The type of study, its purpose and the schedule of visits were intimated before conducting the Health survey programme.

- **Study Area:**

The study was conducted in the area containing 2 schools one Urdu medium primary school and the other is an English medium primary school, offering education from 1<sup>st</sup>- 4<sup>th</sup> Standards. The children were mainly from neighboring slum and upper slum localities. The Health Survey programme was conducted in both primary schools to determine the factors affecting the health status of primary school children and also to detect the leading morbidities in children related with the unhygienic conditions and poor health practices.

- **Study Design:**

A onetime observational survey based cross-sectional study also called as 'Prevalence Study' was conducted among the primary school going children to determine the factors affecting the health status of primary school children and also to detect the leading morbidities in children related with the unhygienic conditions and poor health practices.

- **Study Period:**

The study was conducted for the period of 6 month.

- **Study Sample Size:**

As the study area include two primary co-education schools comprising classes from 1<sup>st</sup> to 4<sup>th</sup> and the age of the subjects included in the study sample was between 5-11 years. There were four sections each in a class. But the sections of the class with leisure period were taken for check-up during the study. Thus 500 children were selected by using 'Simple Random Sample' method from the total to include in the study as a sample size so as to keep the data as precise as possible.

- **Inclusive Criteria:**

- Children of age group 5 – 11 years.
- Students studying from 1<sup>st</sup> – 4<sup>th</sup> Standard.
- Both male and female students.
- Students from both English and Urdu medium primary schools.

- **Exclusive Criteria:**

- Children below the age of 5 years and above 11 years.

- Students studying in upper primary and high school
- Students of Primary schools other than the study area.
- Children with systemic diseases and other complications were excluded from the study.

- **Criteria for Assessment:**

The criteria for assessment in the study were based on the subjective and objective parameters. The result is calculated in percentage (%) and the findings are depicted in the form of “Tables and Figures”. The data thus collected is analyzed and the result is evaluated using appropriate Statistical tests.

- **Subjective Parameters:** It includes -

Demographic parameters such as sex, age, socio-economic status, religion of the students studied. The general physical examinations depend upon the condition of clothing, hairs, nails, teeth and nose. Necessary health practices such as habit of brushing, bathing, hand wash with soap before eating and after defecation and physical activities. Depending upon the marks obtained the status of personal hygiene was determined as poor, fair or good. To emphasize the morbidities associated with unhygienic and bad health practices.

- **Objective Parameters:** It includes –

The tools were pre-tested and pre-designed.

The questionnaire regarding putative indicators is used to interview the students about their personal hygiene, health practices and their family particulars. Stethoscope, clinical thermometer, weighing machine and measuring tape were used to record the respiratory rate, body temperature, weight and height of the students respectively.

- **Inference of the Result:**

General examination and examination about necessary health practices were scored as 1, 2, and 3 for the poor, fair and good ranking respectively. The score of all the observation were then cumulated to infer the level or status of the personal hygiene as - Good / fair / Poor.

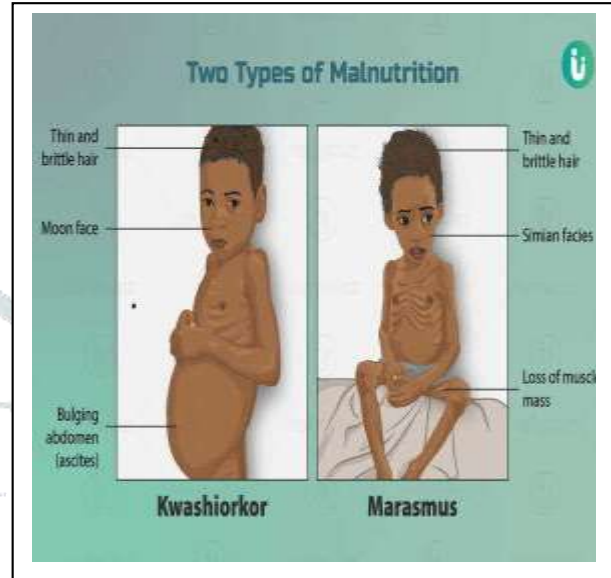
- **Data Collection:**

The children were interviewed about the necessary health practices by using a pre designed - School Survey Questionnaire. The readymade protocol comprises of questions regarding general appearance of students, physical examinations Such as; condition of clothes, hairs, nails, teeth and nose. Likewise the students adopting health practices such as; habit of bathing, brushing, and habit of hand wash with soap before eating, after defecation and physical activities. Each and every child was assessed by the same questions individually and accordingly with the help of class teacher, the children were graded under scoring technique. The age of children was calculated by referring school records or registers. Thus age is calculated up to the nearest completing month. Since children more than 11 years were not included. The ongoing survey was conducted for about 6 months i.e. twice in a week and on each day of the survey 12-15 subjects were examined and interviewed. Subsequently the parents of the students included in the study sample were also informed to make a visit, as to know about their education, occupation and family income. Parents of some students approached during the study period. Some parents were personally

interviewed on the Parent's Meet Day (Open Day). Some families of the examined students were contacted through phones by collecting their phones numbers from school records. Some families were neither visited nor approached personally and their phone numbers were also not available, to such families questionnaire were send to their homes and the students were make sure to return back the questionnaire after filling by their parents.



**Fig. 1 Malnutrition in Childhood (A Serious Health issue worldwide)**



**Fig. 2 Kwashiorkor and Marasmus Malnutrition in Childhood**

#### IV. Health problems among children:

The main health problems encountered in the child population comprises of the following:

- **LOW BIRTH WEIGHT:**

Low Birth Weight (LBW) baby is one weighing less than 2.5 kg or 2500 gms preferably within the first hour of life. Clinically it is of two types:

- Babies born too earlier i.e. before the gestational period of 37 weeks are said to be "Pre-term Babies".
- Babies who have intra-uterine growth retardation, these babies are undernourished (small) for the given gestation (date). These babies are said to be "Small for Gestational Age" (SGA) or "Small for Dates" (SFD).

#### Social causes:

Habit of smoking, low socio-economic status, poor housing facilities, low nutritional profile, less prenatal care, unhygienic environment etc.

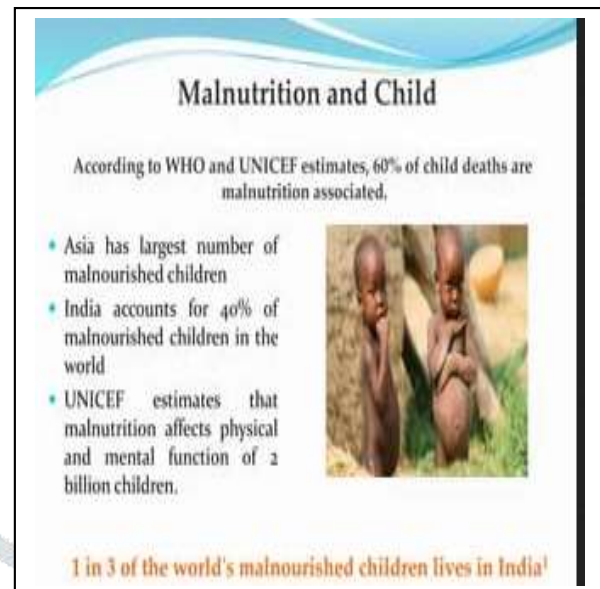
#### Prevention:

- Improvement in socio-economic conditions.
- Availability of proper social and health services
- Nutritious diet for mother
- Frequent prenatal checkups.

- Avoid smoking during pregnancy.



**Fig. 3 Deficiencies of Vitamin and Protein causes Malnutrition**



**Fig. 4 Malnutrition are serious health problem in Poor Countries**

- **MALNUTRITION:**

Malnutrition is a pathological state resulting from a relative or absolute deficiency or excess of one or more essential nutrients. (Undernourishment) PEM, (over nourished) Obesity, (imbalanced nourishment) pellagra, (nutritional deficiency)xerophthalmia etc. Malnutrition is a primary cause of morbidity and mortality and a complicating factor for other illnesses. Subsequent proteins, calories, micronutrients results in increased susceptibility to many infectious diseases. Acute and chronic infection may further exacerbate a child's nutritional deficiencies and often results in a child's death. Under nutrition is widely recognized as a major problem in the developing world and PEM has been identified as a major health and nutritional problem among the children in India. PEM is a prolonged undernourishment with an interaction and infection, both early and abrupt weaning and late gradual weaning among children. It occurs particularly in weaklings among the children who are in first year of life, leading to permanent impairment of physical and possibly mental growth of children. Marasmus and kwashiorkor are the two clinical forms of PEM. Marasmus is an infantile atrophy, inanition common in infants due to insufficient diet and poor hygiene it is mainly caused due to protein calorie deficiency. Its clinical manifestations are loss of weight until emaciation occurs,

- **Accidents and poisoning:**

Accidental poisoning in children is a Global problem. The relative importance of poisoning as a cause of childhood morbidity and mortality increases now days. Accidental poisoning is the 12<sup>th</sup> leading cause among the pediatric health problems. Most of the accidental cases are preventable. But the continuing morbidities and mortalities are increasing day by day. It is a serious challenge for the pediatricians and public health officers.

**Preventions:**

- Protecting child from poisonous substances
- Awareness of parents regarding potential household poisons
- Need of parental supervision and care
- Safety regulations by the state should be enforced
- Establishing poison control centers.

- **Behavioral problems:**

Behavior means to say- to act or react in a specified way, showing good manners. Behavioural development is the course of changes over time in perception, learning, thinking, language and personality also said to be internal organizing forces (nature) versus personal history and experiences (nurture).

The approach of child's development and behavioral outcome has three goals.

- To nurture the child's primary attachment and promote development.
- To decrease parent-child conflicts and increase parent's understanding empathize with the child.
- To identify remedial disabilities and problems.

Although the developmental milestones reached the school-age years which are less significant to diseases than infancy and pre-school age years. But the school age years are increasingly significant with regard to social, cognitive and emotional factors. It is crucial to discuss these issues at the Annual Health Maintenance visits during the school years. The emotional and psychological well-being of the school child is often hard to discern during these years. It is very important that the parents and the pediatricians should be aware of any troubles or signs building under a child. Recently a child psychiatrist and pediatrician in U.S.A had developed a measure for screening the psychosocial and emotional problems in the school age child. A self-administered, well validated questionnaire called as "Pediatric Symptom Checklist" which helps to identify children who may be experiencing some interpersonal or emotional difficulties. It is not designed to allow for a definitive diagnosis of the specific problem or difficulty but at least it allows for identifying the "at risk" child and some objective reason for a referral.

**V. Health problems of School-age Children:**

Sickness is a major cause of school absenteeism and also in scholastic backwardness. It is estimated that every 3<sup>rd</sup> child has some signs of ill health. The age specific mortality rate is 2.8/1000 population among 5-9 years age children. Health survey in Indian schools indicates that the rate of morbidity and mortality is highest among children in the world. The main Emphasis of school age children morbidities falls in the following categories:

- **Nutritional disorders or Malnutrition:** Anemia, late effects of protein energy malnutrition, Iodine deficiency syndrome. Vitamin A, D deficiency.



**Fig. 5 Malnutrition is Health problem in school children's**



**Fig. 6 Girls are Health Problem during Periods (Menstruation cycle)**

- **Intestinal Parasites or Worm Infestations:** Amoebiasis, Ascariasis, acute diarrhealdiseases, viral hepatitis, cholera, typhoid, worm infestation, poliomyelitis.
- **Communicable or Infectious or Contagious diseases:** Small pox, Chicken pox, measles, mumps, influenza, diphtheria, pertussis, tuberculosis, meningitis
- **Skin problems:** Scabies, Ringworm, boils, furunculosis, impetigo.
- **E.N.T. disease:** Earache, Ear discharge, boils otitis, deafness, acute respiratoryinfections, cold, influenza, sinusitis, stomatitis, Halitosis and conjunctivitis.
- **Teeth or Dental problems:** Dental Carries, bleeding gums, Scurvy, periodontaldiseases.
- **Behavioural problems:** Depression, moodiness, aggression, addiction to bad habits.

#### **Objectives of School health Services:**

- To promote positive health of a child
- To prevent childhood diseases
- To recognize chronic defects among children.
- To create health consciousness among children
- To provide a healthy school environment.





**Fig. 7 water and related diseases in school children's at their Home**



**Fig. 8 Contaminated water in School are major health problems**

#### **Various aspects of school health services are:**

- Health Appraisal of school children and school personnel.
- Remedial measures and follow ups.
- Prevention of communicable diseases.
- Healthy school environment.
- Nutritional services.
- First aid and emergency care.
- Mental health.
- Dental health.
- E.N.T. health.
- Physical health.
- Health education.
- Education of handicap children.
- Proper maintenance and use of school health records.

Thus the school health services are the most efficient and they cost effective waysto improve student's health and academic performance. There is sample evidence that better health improve academic performances too.

#### **VI. Healthful school environment for children:**

A healthy school environment is also necessary for the proper emotional, socialand personal health of the school children. The site or area of surrounding, the schoolbuilding and the equipments provided are also a part of the environment in which thechild grows and develops. Following are some important points mentioned for maintaining minimumstandards for sanitation of the school in India:

- **Location:** The school should be situated far away from the busy places and roads such as cinema halls, factories, market yards, railway tracks and the school premises should be properly fenced to protect from hazards.
- **Class rooms:** Every class room should be attached with a veranda for proper ventilation. Class rooms should not be over crowded; every class should be accommodated with not more than 40 students.



**Fig. 9 Well Furnished class Room in Schools**



**Fig. 1 Ventilation in school are directly effect on physical and mental Health**

- **Ventilation:** The windows should be placed on different walls for cross ventilation. So that the class rooms should have sufficient natural light, preferably from left not from, front.
- **Water Supply:** The water supply should be sufficient and adequate and also there should be an independent source of safe and potable water for drinking purpose. As paucity of drinking water causes intestinal infestations.
- **Lavatory:** The sanitary facilities should be arranged separately for boys and girls. They should be cleaned for regular intervals of time. The sanitary disposals and the garbage clearance should be made from time to time.

Thus schools should serve as centers of demonstration to the community.

## VII. Observation and Results

**Table no. 1 Distribution of age of the group of students studied.**

Demographic Parameter	No. of Students (n=500)	Percentage	Chi-Square value ( $x^2$ )	P-value
<b>Age Group (years)</b>				
5 + to 6+	117	23.4	30.678	0.001
7 + to 8+	165	33.0		
9+ to 10+	218	43.6		

Note: P-value less than 0.05 is considered to be statistically significant

**Comments:** The age distribution of the participating students is significantly different.

Majority of student's age was between 9+ - 10+ years at the time of study.

**Table no. 2 Distribution of sex of the group of students studied.**

Demographic Parameter	No. of Students (n=500)	Percentage (%)	Chi-Square value ( $x^2$ )	P-value
<b>Sex</b>				
Male	270	54.00	3.2	0.074
Female	230	46.00		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** The distribution of sex of the participating students is not significantly different.

**Table no. 3 Distribution of religion of the group of students studied.**

Demographic Parameter	No. of Students (n=500)	Percentage(%)	Chi-Square value( $x^2$ )	P-value
<b>Religion</b>				
Hindu	45	9.0	723.947	0.001
Muslim	453	90.6		
Christian	2	0.4		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** The religious status of the participating students is significantly different.

Majority of students were Muslims.

**Table no. 4 Distribution of socio-economic status of the group of students**

DemographicParameter	No. of Students (n=500)	Percentage	Chi-Square value ( $x^2$ )	P- value
<b>Socio-Economic Status</b>				
Class II	33	6.6	160.341	0.001
Class III	196	39.2		
Class IV	270	54.0		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comments:** The socio-economic status of the participating students is significantly different. Majority of students belong to upper lower (IV) socio-economic class.

**Table no. 5 Distribution of general physical examination (Clothing).**

DemographicParameter	No. of Students (n=500)	Percentage(%)	Chi-Square value ( $x^2$ )	P-value
<b>Clothing</b>				
Clean	165	33.0	254.068	0.001
Dirty	313	62.6		
Well dressed	22	4.4		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students had dirty clothing.

**Table no.6 Distribution of general physical examination (Hairs).**

General physical examination	No. of Students (n=500)	Percentage(%)	Chi-Square value ( $x^2$ )	P-value
<b>Hairs</b>				
Clean	45	9.0	137.788	0.001
Dirty with lice	08	41.6		
Dirty	247	49.4		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comments:** Significantly higher proportion of students had dirty hairs. However 41.6% of the students had dirty hairs with lice infestation.

**Table no.7 Distribution of general physical examination (Nails).**

Demographic Parameter	No. of Students (n=500)	Percentage	Chi-Square value ( $x^2$ )	P-value
<b>Nails</b>				
Dirty & untrimmed	177	35.4	2.284	0.319
Dirty	151	30.2		
Clean	172	34.4		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comments:** Significantly higher proportion of students had dirty and untrimmed nails.

**Table no.8 Distribution of general physical examination (Teeth).**

DemographicParameter	No. of Students (n=500)	Percentage(%)	Chi-Square value ( $x^2$ )	P-value
<b>Teeth</b>				
Dental caries	168	33.6	0.016	0.992
Mottled teeth	166	33.2		
Clean	166	33.2		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students had dental caries.

**Table no.9 Distribution of general physical examination (Nose).**

General physical examination	No. of Students (n=500)	Percentage(%)	Chi-Square value ( $x^2$ )	P-value
<b>Nose</b>				
Clean	66	13.2	272.752	0.001
Crusty	94	18.8		
Running	340	68.0		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students had Running nose. However 18.8% of the students had crusty nose.

**Table no.10 Distribution of necessary health practices (Brushing).**

Demographic Parameter	No. of Students (n=500)	Percentage	Chi-Square value ( $x^2$ )	P-value
<b>Brushing</b>				
Twice	0	0	165.888	0.001
Once	394	78.8		
Irregular	106	21.2		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comments:** Significantly higher proportion of students brush once in a day

**Table no. 11 Distribution of necessary health practices (Bathing)**

DemographicParameter	No. of Students (n=500)	Percentage(%)	Chi-Square value ( $x^2$ )	P-value
<b>Bathing</b>				
Irregular	308	61.6	252.784	0.001
Alternate	174	34.8		
Daily	18	3.6		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students has the habit of irregular bathing

**Table no.12 Distribution of necessary health practices (Hand wash with soap before eating)**

NecessaryHealth Practice	No. of Students (n=500)	Percentage (%)	Chi-square value ( $x^2$ )	P-value
<b>Hand wash with soap before eating</b>				
Often	0	0	339.408	0.001
Never	456	91.2		
Yes	44	8.8		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportions of students never wash their hands with soap before eating food.

**Table no.13 Distribution of necessary health practices (Hand wash with soap after Defecation)**

Demographic Parameter	No. of Students (n=500)	Percentage	Chi-Square value ( $x^2$ )	P-value
<b>Hand wash with soap after Defecation</b>				
Often	146	29.2	242.416	0.001
Never	318	63.6		
Yes	36	7.2		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comments:** Significantly higher proportions of students never wash their hands with soap after defecation

**Table no. 14 Distribution of necessary health practices (Physical activity).**

Demographic Parameter	No. of Students (n=500)	Percentage (%)	Chi-Square value ( $x^2$ )	P-value
<b>Physical activity</b>				
Once	63	12.6		
Occasionally	22	4.4	252.784	0.001
Daily	415	83.0		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students daily had their physical activities.

**Table no. 15 Distribution of status of personal hygiene among the group of students studied.**

Necessary Health Practice	No. of Students (n=500)	Percentage (%)	Chi-square value ( $x^2$ )	P-value
<b>Personal Hygiene</b>				
Fair	151	30.2	140.144	0.001
Poor	282	56.4		
Good	67	13.4		

Note: P-value less than 0.05 is considered to be statistically significant.

**Comment:** Significantly higher proportion of students had poor personal hygiene.

## VIII. Discussion

Jismani Safai (Personal Hygiene) denotes immense sense of personal cleanliness. It plays a key role in preventing majority of health problems caused due to unhygienic health practices. The world children constitute priority group and in our country 40% of the population constitutes children between 0-14 yrs of age and a very large pool of this group are included as primary and secondary school going children. Childhood is a very

crucial period as besides undergoing many physiological and anatomical changes children can be easily be susceptible to infections. W.H.O report - 2002 the rate of mortality was highest in South-East Asia among children due to some selected infectious diseases such as respiratory infections- 1,377; diarrhoea - 802; tuberculosis - 701; malaria - 193 and measles - 193. A school age is a critical time in development of a human being and 5-14 yrs children are included in the school age life where the school life provide a strategic point of entry in improving child health, self esteem, life skills and behaviours. Schools impart health education, good health practices, personal hygiene in the children and the school health services provide an ideal platform for detecting the health problems earlier and to treat them within the arbitrary period. As far as India is concerned many studies and survey programmes were conducted at various levels and among different population groups which revealed that the rate of mortality was highest especially among children. It was reported by W.H.O that diarrhoea is the highest among six epidemiological diseases which accounts 40.8% and globally it constitutes 90% of deaths among children due to communicable diseases. Based on the above considerable facts the present study on Jismani safai (personal hygiene) was conducted to determine the factors affecting the health status of primary school children and also to detect the leading morbidities in children related with the unhygienic conditions and poor health practices among 500 randomly selected students studying in both Urdu and English and medium primary schools situated in the slum and upper slum localities of the study area. The study was conducted with a fully fledged protocol filled with all the mandatory and ethical requirements. The questionnaire was filled during the survey and their inferences were depicted in the form of tables and self explanatory figures to intend its appropriate result.

## IX. Conclusion

The present study was a cross-sectional study conducted in two primary schools and the purpose of the study was to determine the factors affecting the health status of primary school children and also to detect the leading morbidities in children related with the unhygienic conditions and poor health practices among 500 (1<sup>st</sup> – 4<sup>th</sup> standard) primary school children included in the study.

The overall findings of the present study are concluded below:

- The age group of the children included in the study was between 5-11 yrs.
- The no. of boys are quite more than the no. of girls included in the study with a ratio of 1:1.18
- Majority of children 90.6% were Muslims, as among the two schools included in the study, one school was purely Urdu medium primary school and the study area belongs to Muslim locality.
- Majority of children 54.0% belong to upper lower (IV) socio-economic class as the school were situated in slum and upper slum localities.
- The age, sex and religion of the children included in the study do not affect the prevalence of Jismani safai (personal hygiene) in aspect as [per the study. But on the other hand socio-economic status plays a significant role in the distribution of various morbidities among these children.
- On total a very small proportion of children 67 (13.4%) had the status of good personal hygiene and only 180 (36.0%) of children were found to be healthy and 320 (64.0%) children suffer with different morbidities.



- The morbidities emphasized among the children included in the study were- dental caries, mottle teeth, diarrhoea, URTI, tonsils, skin allergies (scabies, dermatitis) pediculosis (lice infestation) and bleeding gums (gingivitis).
- The prevalence rate of Jismani safai (personal hygiene) among 282 (56.4%) children was found to be significantly poor. Thus the rate of morbidities was found to be higher among children with poor personal hygiene score.
- 13.4% children had good personal hygiene and 56.4% children had poor personal hygiene when compared with others. Thus the health status is found to be relatively significant with the status of Jismani safai (personal hygiene).

The prime findings revealed through our data were - the distribution of morbidities was significantly higher in the children with poor personal hygiene score and the increasing trend of prevalence rate was probably high due to unhygienic and bad health practices. The study shows that more no. of children had poor personal hygiene due lack of awareness about health and hygiene and also due to low socio- economic status. Health and hygiene as a subject cannot be taught, but it can be learnt as a way of life. So the health education programmers in the school should be lively it means to say practical based on every day need and interest of children as school age is a formative period in physically as well as mentally developing a child into a promising adult.

## X. Summary

Jismani safai (Personal hygiene) it denotes the immense sense of personal cleanliness. Individual's health solely depends upon personal hygiene unless it is maintained constantly. The modern era speaks of microbes which are innumerable in the environment and are predominantly present in the areas or zones which are unhygienic and dirty. So the people living in the clean and hygienic environment are less susceptible to different infections or morbidities when compared with those people living in the dwells, dirty and unhygienic environment. Childhood is a vital period in individual's life and the children are considered as the most vulnerable sections of the society as many physiological and anatomical changes occur during this age. They can easily be susceptible to infections and diseases and falls as an easy prey for many epidemiologically communicable diseases. Health problems are vast in the developing world but some are encountered and most of them are evident in the field of child population.

In Unani system of medicine the physicians such as - Jalinus (Claudius Galen: 129-200 A.D), Rabban Tabari (770-850 A.D), Zakaria Al-Razi (Rhazes: 850-923 A.D), Ibn Hubal Baghdadi (1363 Hijri), 'Ali ibn 'Abbas Majusi (Haly Abbas: 930-994, Ibn Sina (Avicenna: 980-1037 A.D), Ibn Rushd (Averroes The Great: 1126- 1198 A.D), Hakeem Ajmal Khan (Masihi Al Mulk: 1863-1927 A.D) they not only described about the health and diseases among children but also they gave regimens for good health and different interventions during illnesses. On reviewing the classical literature Unani physicians also gave important guidelines helpful for proper nurture, child care, diet and even in the educational aspect of children. They described that Jismani safai (Personal hygiene) is recognized as 'Shaqsii Hifzan e Sehat' which is a branch of 'Hifzan e Sehat' (Hygiene) and it is described as a vital and responsible factor in preventing diseases and preserving health. Jismani safai (Personal hygiene) related with physical health of

an individual and documented its emphasis with various etiological factors such as social, environmental, psychological, socio-economic factors etc. A cross sectional study was undertaken among primary school children included in the study sample with the below mentioned objectives:

- To emphasize the morbidities associated with the unhygienic conditions and bad health practices among the primary school children.
- To develop good health habits and to bring desirable changes in the health knowledge of school children.

A sample of 500 children studying in 1<sup>st</sup> – 4<sup>th</sup> standards of Urdu and English medium primary schools offering co-education were included in the study. Seeking with the help of class teacher each and every child was keenly observed and interviewed and the information was thus collected in pre-designed questionnaire type proforma's with scoring technique. The children were assessed based on their condition of clothing, hairs, nails, teeth and nose also on their habit of brushing, bathing hand wash with soap before eating and after defecation and physical activities. Depending upon the marks obtained his/her status of personal hygiene was determined as poor/fair/good.

#### **Salient features of the study:**

- The age, sex and religion of the children included in the study does not affect the prevalence of Jismani safai (personal hygiene) in aspect as [per the study. But on the other hand socio-economic status plays a significant role in the distribution of various morbidities among these children.
- Majority of children 54.0% belong to upper lower (IV) socio-economic class as the school were situated in slum and upper slum localities.
- On total a very small proportion of children 67 (13.4%) had the status of good personal hygiene and only 180 (36.0%) of children were found to be healthy and 320 (64.0%) children suffer with different morbidities.
- The morbidities emphasized among the children included in the study were- dental caries, mottle teeth, diarrhoea, URTI, tonsils, skin allergies (scabies, dermatitis) pediculosis (lice infestation) and bleeding gums (gingivitis).
- The prevalence rate of Jismani safai (personal hygiene) among 282 (56.4%) children was found to be significantly poor. Thus the rate of morbidities was found to be higher among children with poor personal hygiene score.
- 13.4% children had good personal hygiene and 56.4% children had poor personal hygiene when compared with others. Thus the health status is found to be relatively significant with the status of Jismani safai (personal hygiene).
- Interactive sessions for creating health consciousness among children were conducted in the schools included in the study. Health education was imparted among the children and the school authorities were obliged to organize a series of concerted health educational camps for at-least once in a month in their schools.
- But the onus also lies on teacher and parents. Both should adequately train the children simultaneously in the school as well as home about good and healthy habits and necessary health

practices for asserting good status of Jismani safai (personal hygiene) which is reliable factor for good 'Health'.

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